Figure 1

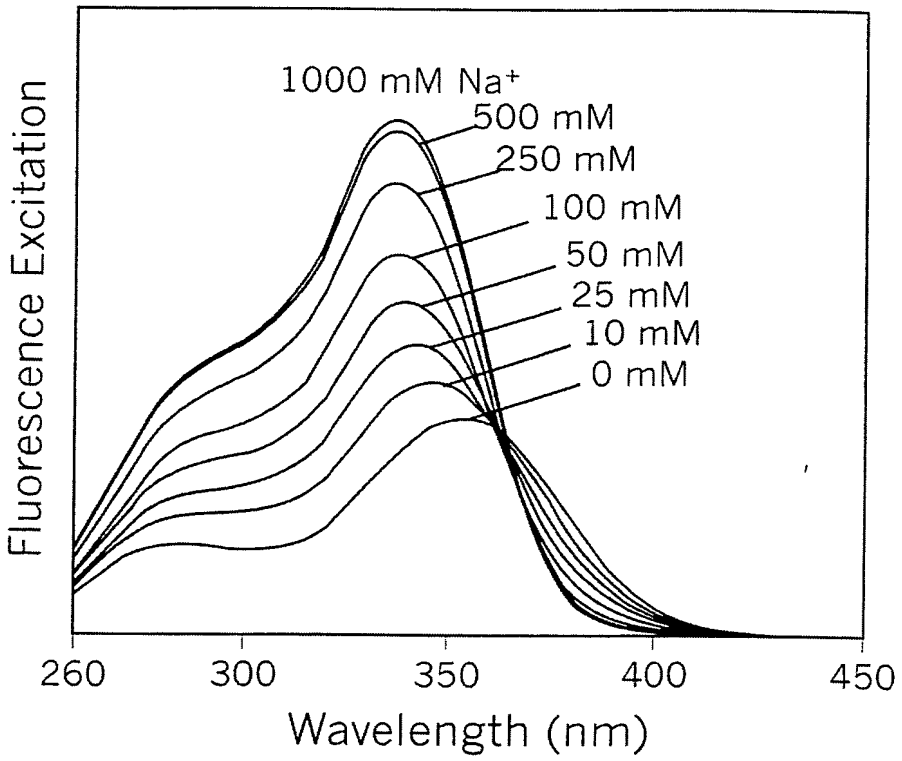

1000 mM Na+
500 mM
250 mM
100 mM
50 mM
25 mM
10 mM
0 mM
Fluorescence Excitation
260
300
350
400
450
Wavelength (nm)

Figure 2

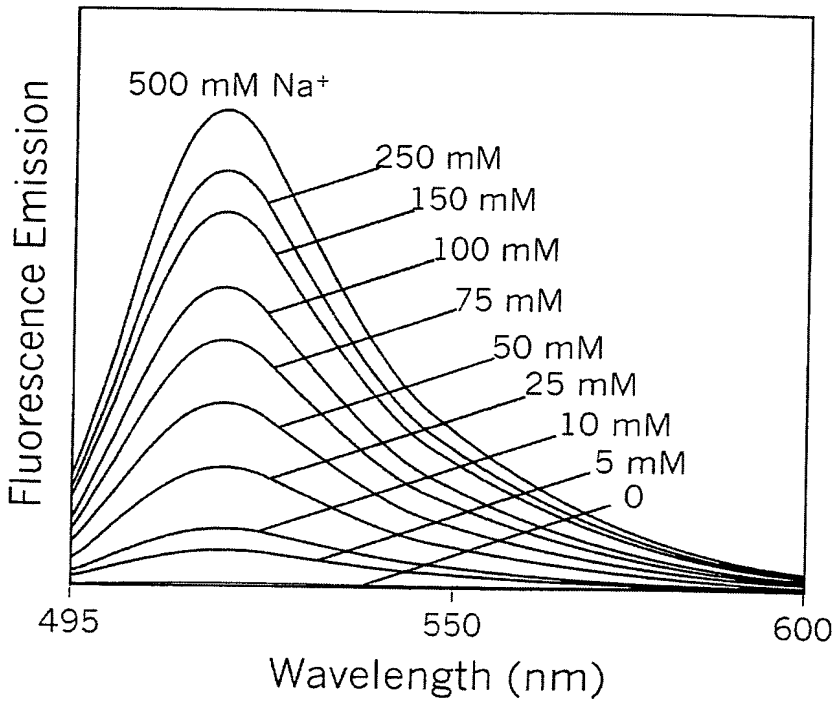

500 mM Na+
250 mM
150 mM
100 mM
75 mM
50 mM
25 mM
10 mM
5 mM
0
Fluorescence Emission
495
550
600
Wavelength (nm)

Figure 3

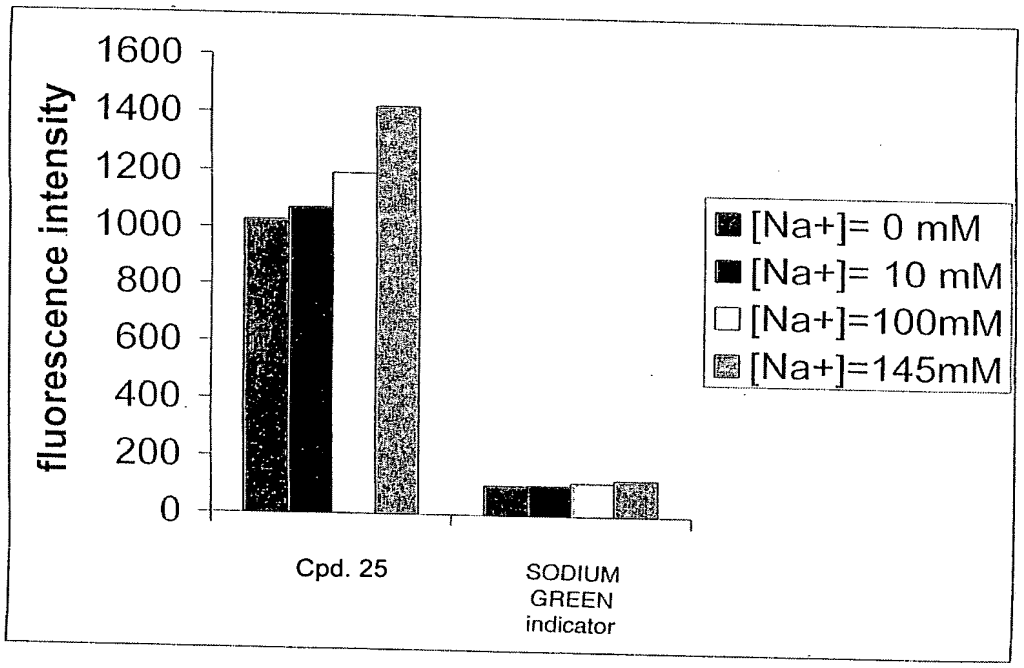

fluorescence intensity
1600
1400
1200
1000
800
600
400
200
0
[Na+]= 0 mM
[Na+]= 10 mM
[Na+]=100mM
[Na+]=145mM
Cpd. 25
SODIUM GREEN indicator

Figure 4A

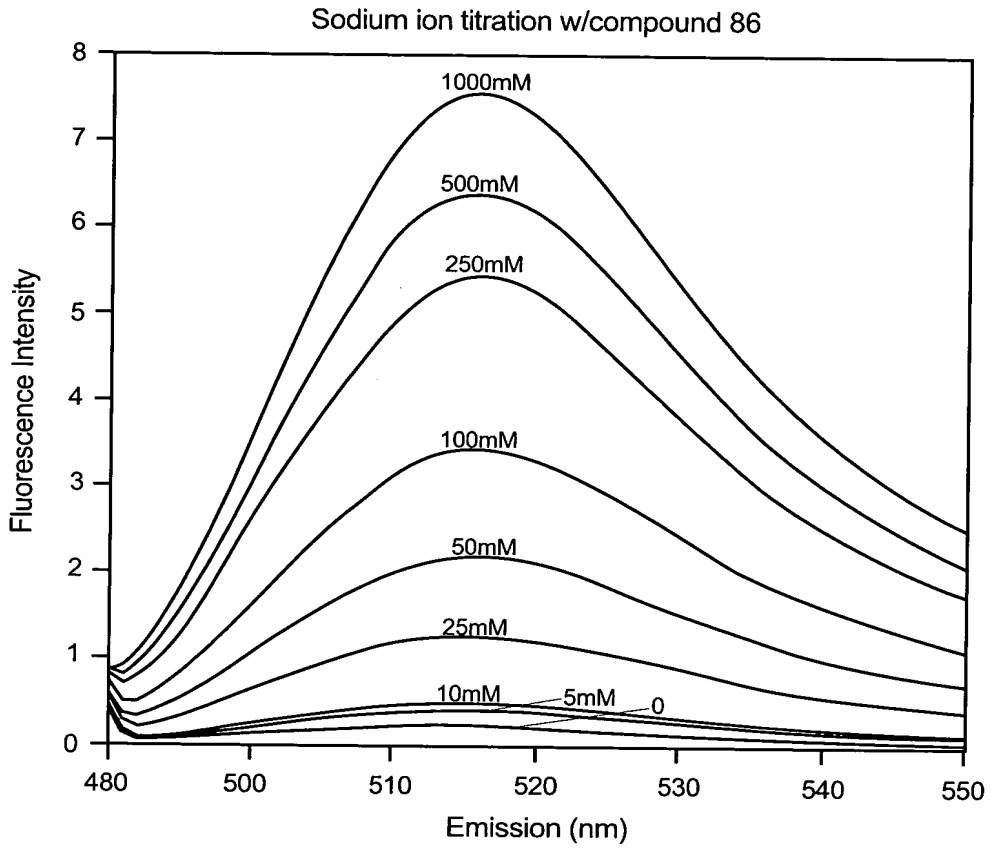

Sodium ion titration w/compound 86
Fluorescence Intensity
Emission (nm)
1000mM
500mM
250mM
100mM
50mM
25mM
10mM
5mM
0
0
1
2
3
4
5
6
7
8
480
500
510
520
530
540
550

Figure 4B

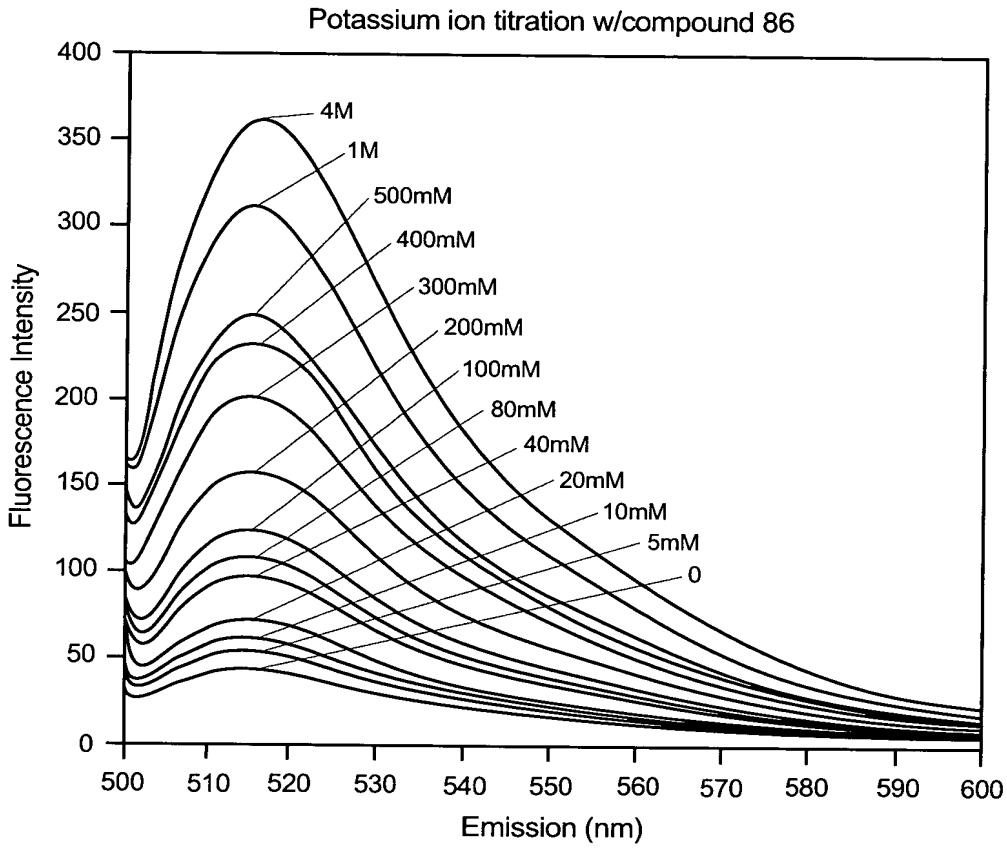
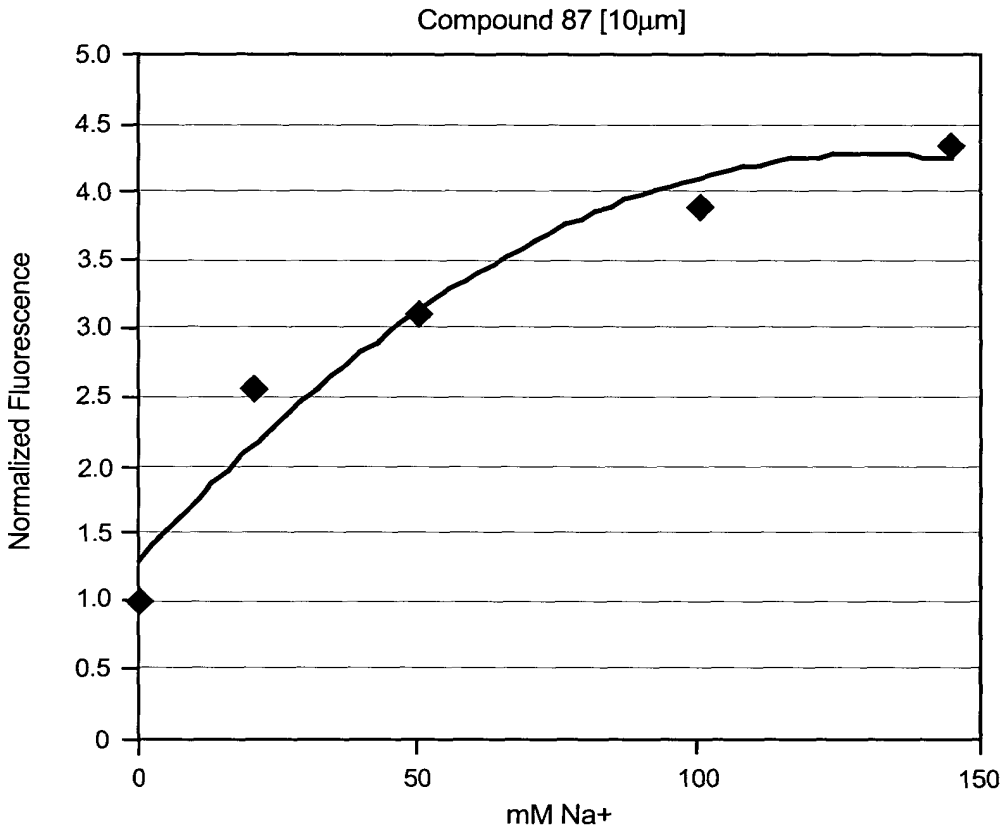

Potassium ion titration w/compound 86
Fluorescence Intensity
Emission (nm)
400
350
300
250
200
150
100
50
0
500
510
520
530
540
550
560
570
580
590
600
4M
1M
500mM
400mM
300mM
200mM
100mM
80mM
40mM
20mM
10mM
5mM
0

Figure 5


Compound 87 [10µm]
Normalized Fluorescence
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
0
50
100
150
mM Na+